

TECHNOLOGY

A101 ADULT CRITICAL TRANSFER SIMULATION: TECHNOLOGY IN MOTION

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Background and aim: Transfer medicine is evolving into a more visible, necessary sub-specialty, particularly since the COVID-19 pandemic, during which the need for proficiency in critical care transfers became apparent. As such, there exists a requirement for the provision of good training in this domain, especially for effective simulation-based learning given the dynamic nature of critical transfers, in tandem with the relative scarcity of experience of the average non-specialist practitioner.

The creation of meaningful simulation training is already well recognized as posing numerous challenges [1], often in balancing fidelity with practicality, for achieving engagement of learners and transfer of learning to practice [2]. When adding the dynamism involved in a transfer - such that simulation requires movement of a critically monitored

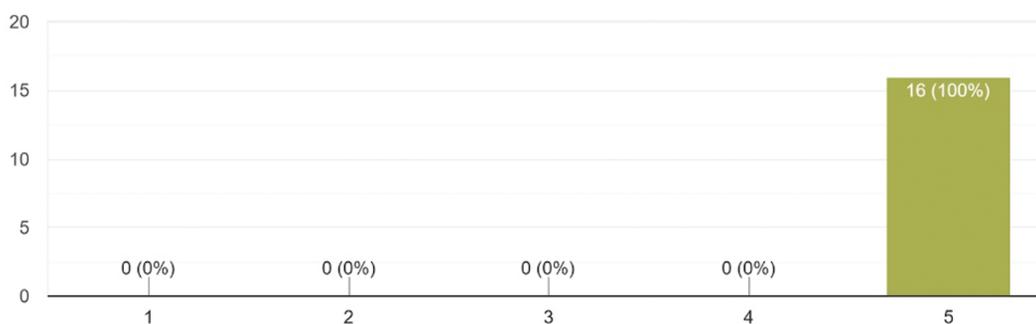
patient from one point to another - this task becomes more complex. Importantly, the integrity of the exercise is lost when provided in a stationary environment, as with much simulation traditionally. This was the focus when designing the Adult Critical Transfer Simulation (ACTS) course - a multi-disciplinary team-based day with pre-course e-learning, focused around assorted simulated scenarios performed in motion across an education suite. Additionally, it incorporates reflexive debriefing, interactive workshops and group discussion sessions to support learning.

Activity: The greatest technical challenge of ACTS - modified repeatedly now over two years - was the delivery of mobile, multi-environment scenarios that provide an equivocal experience to that of traditional, stationary lab-based simulation. This was addressed utilizing wireless, remotely controlled patient models and monitoring alongside a network of strategically placed cameras and microphones to provide immersive simulation for both active and observing participants. In addition, considerable attention was given to audio-visual cues at all points of transition for creating the ambience of a moving transfer, the efficacy of which is reflected in positive course feedback.

Results: Feedback on ACTS was collated from all participants, with significantly favourable responses in every domain and 100% overall score of 5/5 for both enjoyment and recommendation, and 93.8% score of 5/5 for relevance to professional needs (Figure 1-A101). Positive comments were most numerous regarding realism and engagement of the experience, and faculty expertise, with additional

Overall how much did you enjoy the course?

16 responses



Overall how relevant was the course to your professional needs?

16 responses

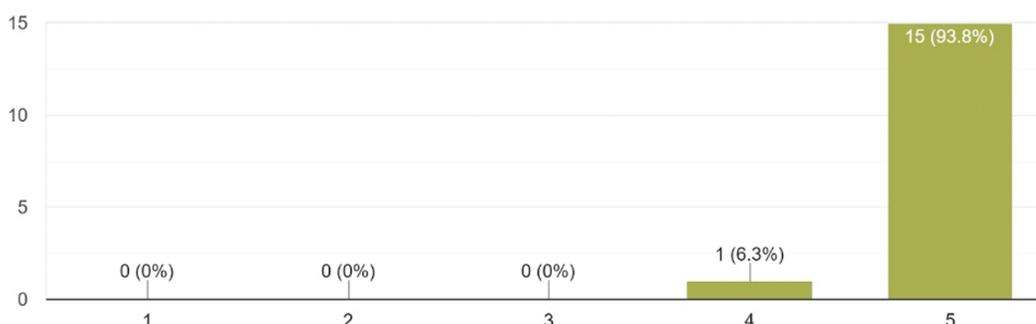


Figure 1-A101: Feedback from participants of the 2023 Winter run

commentary strongly supporting recommendation to other professionals and anticipation for continued provision.

Conclusion: Although there is no substitute for real-life experience, ACTS has demonstrated multi-disciplinary need for critical transfer proficiency can be met successfully through the provision of dynamic simulation when facilitated by technology, with great scope for future development given the rapidly advancing nature of technological resources.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

REFERENCES

1. Dieckmann P, Gaba D, Rall M. Deepening the theoretical foundations of patient simulation as social practice. *Simul Healthc.* 2007 Fall;2(3):183-93. doi: 10.1097/SIH.0b013e3180f637f5. PMID: 19088622.
2. Rudolph JW, Simon R, Raemer DB. Which reality matters? Questions on the path to high engagement in healthcare simulation. *Simul Healthc.* 2007 Fall;2(3):161-3. doi: 10.1097/SIH.0b013e31813d1035. PMID: 19088618.

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A102 EMBEDDING ELECTRONIC PATIENT RECORDS INTO ROUTINE MEDICAL SIMULATION TRAINING ACROSS THE SOUTH EAST OF ENGLAND, A PIONEERING REGIONAL COLLABORATION

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Background and aim: Electronic patient record (EPR) systems are increasingly prevalent in clinical settings, yet UK medical simulation training continues to use outdated paper-based methods for training healthcare staff. While published literature has highlighted the training benefits of incorporating EPRs into medical simulation training [1, 2], the transition has previously been hampered by a lack of bespoke software. To address this, a novel educational EPR (named SimEPR) was created, a bespoke training software designed to be used on a computer at the manikin's bedside, which features customizable clinical scenarios (Figure 1-A102).

Aim: This project aimed to incorporate SimEPR into routine medical simulation training in the South East of England, and report trainee experience using the software.

Activity: Feedback data was collected from trainees who used SimEPR as part of their simulation training using an electronic feedback form. SimEPR was initially deployed in a medical school and two NHS trusts from 11th February 2021, before the project was scaled up to six additional educational centres (one university and five NHS trusts) from 3rd January 2023.

Findings: Data from 209 trainees was collected, of which 16% were medical students, 82% were foundation doctors and 2%

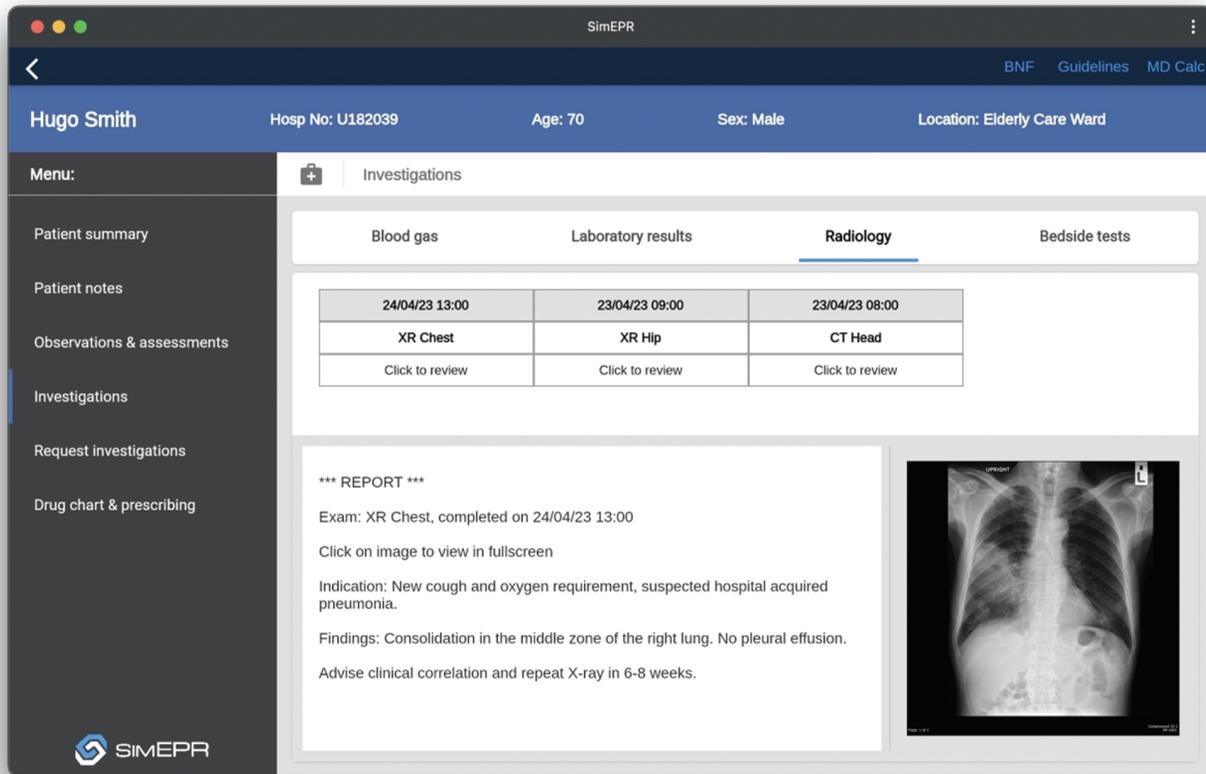


Figure 1-A102: A preview of SimEPR, a novel educational electronic patient record system designed for UK medical simulation training